

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-16. (Canceled)

17. (New) A projector comprising:

an illumination optical system for emitting a light;

an electro-optical device for modulating the light emitted from the illumination optical system in response to image information;

a projection optical system for projecting a modulated light generated by the electro-optical device; and

an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system, and the rock crystal member being disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member.

18. (New) The projector in accordance with claim 17, wherein the light passing through the rock crystal member is linearly polarized light, and

the rock crystal member is disposed in such a manner that the Z axis of the rock crystal is substantially parallel to or substantially perpendicular to an electric vector of the linearly polarized light.

19. (New) The projector in accordance with claim 17,

wherein the rock crystal member is a lens, the light passing through the lens is linearly polarized light and the lens is disposed in such a manner that the Z axis of the rock

crystal is substantially parallel to or substantially perpendicular to an electric vector of the linearly polarized light.

20. (New) A projector comprising:

an illumination optical system for emitting a light;

an electro-optical device for modulating the light emitted from the illumination optical system in response to image information;

a projection optical system for projecting a modulated light generated by the electro-optical device; and

an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system,

wherein the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is set to be substantially perpendicular to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially parallel to a center axis of a light passing through the rock crystal member.

21. (New) The projector in accordance with claim 20,

wherein the rock crystal member is a lens, and the lens is disposed in such a manner that the Z axis of the rock crystal is substantially parallel to the center axis of the light passing through the lens.

22. (New) A projector comprising:

an illumination optical system for emitting a light;

a color light separation optical system that divides the light emitted from the illumination optical system into first through third color lights respectively having three color components;

first through third electro-optical devices that modulated the first through the third color lights by the color light separation optical system in response to image information, so as to generate first through third modulated lights;

a color light composition optical system for combining the first through the third modulated lights;

a projection optical system for projecting composite light output from the color light composition optical system; and

an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system, and the rock crystal member being disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member.

23. (New) The projector in accordance with claim 22, wherein the light passing through the rock crystal member is linearly polarized light, and

the rock crystal member is disposed in such a manner that the Z axis of the rock crystal is substantially parallel to or substantially perpendicular to an electric vector of the linearly polarized light.

24. (New) The projector in accordance with claim 22, wherein the rock crystal member is a lens, the light passing through the lens is linearly polarized light and the lens is disposed in such a manner that the Z axis of the rock crystal is substantially parallel to or substantially perpendicular to an electric vector of the linearly polarized light.

25. (New) A projector comprising:

an illumination optical system for emitting a light;

a color light separation optical system that divides the light emitted from the illumination optical system into first through third color lights respectively having three color components;

first through third electro-optical devices that modulated the first through the third color lights by the color light separation optical system in response to image information, so as to generate first through third modulated lights;

a color light composition optical system for combining the first through the third modulated lights;

a projection optical system for projecting composite light output from the color light composition optical system; and

an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system,

wherein the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is set to be substantially perpendicular to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially parallel to a center axis of a light passing through the rock crystal.

26. (New) The projector in accordance with claim 25,

wherein the rock crystal member is a lens, and the lens is disposed in such a manner that the Z axis of the rock crystal is substantially parallel to the center axis of the light passing through the lens.

27. (New) A projector comprising:

an illumination optical system for emitting a light;

a color light separation optical system that divides the light emitted from the illumination optical system into first through third color lights respectively having three color components;

first through third electro-optical devices that modulated the first through the third color lights by the color light separation optical system in response to image information, so as to generate first through third modulated lights;

a color light composition optical system for combining the first through the third modulated lights; and

a projection optical system for projecting composite light output from the color light composition optical system,

wherein at least one of the color light separation optical system and the color composition optical system comprises an optical component, and

the optical component comprises:

a rock crystal member composed of rock crystal; and

a selector film formed on the rock crystal member to select light having wavelength in a predetermined range, wherein the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member.

28. (New) A projector comprising:

an illumination optical system for emitting a light;

an electro-optical device for modulating the light emitted from the illumination optical system in response to image information;

a projection optical system for projecting a modulated light generated by the electro-optical device, and

an optical component having a rock crystal substrate composed of rock crystal and a polarizing plate provided on the rock crystal substrate, the optical component being located in an optical path including the illumination optical system and the projection optical system.

29. (New) The projector in accordance with claim 28,

wherein the rock crystal substrate is disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the substrate, and the polarizing plate is provided on the rock crystal substrate in such a manner that a polarization axis of the polarizing plate is substantially parallel to or substantially perpendicular to the Z axis of the rock crystal.

30. (New) The projector in accordance with claim 28,

wherein the rock crystal substrate is disposed in such a manner that a Z axis of the rock crystal is set to be substantially perpendicular to a surface of the substrate, and the polarizing plate is provided on the rock crystal substrate in such a manner that a polarization axis of the polarizing plate is substantially perpendicular to the Z axis of the rock crystal.

31. (New) A projector comprising:

an illumination optical system for emitting a light;

an electro-optical device for modulating the light emitted from the illumination optical system in response to image information; and

a projection optical system for projecting a modulated light generated by the electro-optical device,

wherein the electro-optical device has a pair of substrates,

at least one of the pair of substrate is a rock crystal substrate composed of rock crystal.

32. (New) The projector in accordance with claim 31,
wherein a light entering the electro-optical device is linearly polarized light,
and the rock crystal substrate is disposed in such a manner that a Z axis of the rock crystal is
set to be substantially parallel to a surface of the substrate and that the Z axis of the rock
crystal is substantially parallel to or substantially perpendicular to an electric vector of the
linearly polarized light entering the electro-optical device.

33. (New) The projector in accordance with claim 31,
wherein the rock crystal substrate is disposed in such a manner that a Z axis of
the rock crystal is set to be substantially perpendicular to a surface of the substrate and that
the Z axis of the rock crystal is substantially parallel to a center axis of a light passing through
the rock crystal substrate.